

## DRAWINGS ATTACHED

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## (54) FLEXIBLE JOINT

(71) I, NIGEL PAXTON SCARSBROOK, a British subject, of 99 Manor Road, Old Woodstock, Oxford, OX7 1XS, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:

This invention relates to a spring controlled flexible three-positional joint for the purpose of controlling the two parts of a divided tube, or two separate tubes, to take up one of three positions, viz in alignment, at right-angles to each other or folded together to lie side-by-side.

Such a joint may be put to many varied uses, but one simple example, given only by way of example, is an angler's landing net, wherein in the first position the net is ready for normal use, in the second position it may be used as a line raft and in the third position it is readily storable and transportable.

According to the invention two tubes are connected together by a joint comprising a rod fitted in each tube, a tension spring within the tube pulling the rod into the tube and a common strap pivotally secured towards its ends to the rods and of sufficient length to bridge the bore of either of said tubes when disposed perpendicularly thereto.

The distance of the pivotal points of the straps from its outer ends may be greater than the distance of those points from the outer ends of the tube(s) when the strap is at right angles to the rod(s).

When the rod is pulled into a tube by its spring, the strap is held in alignment with the tube. To move a tube from one position to another it is simply necessary to draw a rod from the tube against its spring until the strap is clear of the end of the tube and freely pivotable.

The invention will now be described in greater detail with reference to the accompanying drawings, of which,  
 Figure 1, is a side view, partly in section, of two tubes held in alignment,  
 Figure 2, is a similar view with the two tubes held at right-angles to each other,  
 Figure 3, is also a similar view showing the tubes in the folded or collapsed position, and  
 Figure 4 is a part perspective view of the joint at the end of one tube.

Two tubes 11 and 12, which in the case of an angler's landing net, are of substantially equal length, are connected together by the joint designated generally by the numeral 20. The joint comprises two rods 13 and 14, each having a bifurcated outer end as indicated at 15. These rods fit within the tubes 11 and 12 and are held therein by tension springs, such as 17, secured to the inner ends of the rods and to screws or dowels passing through the tubes. A strap 19 is pivoted at 21 and 22 respectively in the bifurcated ends of the rods 13 and 14.

The part of the strap projecting beyond the pivot point (when in the positions shown in figures 2 and 3) is of a length  $x$  (figure 2) which is greater than the distance  $y$  of the pivot points (21 or 22) from the outer ends of the tubes (11 or 12). It is, of course, only necessary that, when perpendicular to a tube, the strap bridge the bore of the tube. By withdrawing either rod against its spring, the strap 19 is then freely pivotable. Protective sleeves 23 and 24 may be secured in any convenient manner, shown for example in figure 2 as small screws 25, to the adjacent ends of the tubes 11 and 12.

In the position shown in figure 1, in the case for example, of an angler's landing net, the net is ready for normal use; in figure 2 it may be used as a line raft with one tube thrust into the ground and the other (supporting the net) lying horizontally, whilst in figure 3 it is readily storable and transportable.

**WHAT I CLAIM IS:—**

1. A flexible, three-positioned joint between two tubes, comprising a rod fitted into  
5 each tube, a tension spring within the tube pulling the rod into the tube and a common strap pivotally secured towards its ends to the rods and of sufficient length to bridge the bore of either of said tubes when dis-  
10 posed perpendicularly thereto.

2. A joint as claimed in claim 1, in which the distance of the pivotal points of the strap from its outer ends is greater than the distance of those points from the outer

ends of the tube(s), when the strap is at 15 right angles to the rod(s).

3. A joint as claimed in claim 1, in which protective sleeves are secured to the adjacent ends of the tubes.

4. A flexible three-positional joint sub- 20 stantially as hereinbefore described and as illustrated in the accompanying drawings.

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2 SHEETS

COMPLETE SPECIFICATION

This drawing is a reproduction of  
the Original on a reduced scale.

SHEET 1



